**Exercise # 8**

**DIE BACK AND ANTHRACNOSE**

Dieback means dying of branches or stem from top to downward. Dieback is also referred as wither tip. Anthracnose means necrotic and sunken ulcer-like lesion on the stem, leaf, fruit, or flower of the host plant. Diebacks and anthracnoses are mainly caused by genus Colletotrichum. Dieback infected tissues and ulcer-like lesions (formed in anthracnose) are comprised of asexual fruiting bodies i.e. acervuli. The most common dieback and anthracnoses, found in Pakistan are: dieback of chillies (*Colletotrichum capsici*), anthracnose of Mango (*C*. *gloeosporioides*) and anthracnose of cotton (*C. gossypii*).

**Materials**

Samples of dieback and anthracnose infected tissues.

**Procedure**

1. Study the symptoms of dieback and anthracnose on several hosts.
2. Take the longitudinal or cross sections of infected portion, examine them under stereomicroscope and locate acervuli.
3. Scratch infected tissues with inoculation needle, mount them on slide containing lactophenol and observe acervuli, conidiophores and conidia.
4. Prepare cultures of these fungi and study the morphology of mycelia, conidiophores and conidia.

**Questions**

1. What are acervuli?

Asexual fruiting bodies having the shape of saucer. In acervuli, asexual spores (conidia) are formed.

1. How do dieback and anthracnose spread?

Through air, rain and injuries.

1. What are conidiophores?

Conidiophores are stalk like structures on which conidia are formed. Conidia are asexual spore.



Die Back of Chili



Anthracnose of Cotton



Mango Anthracnose